ASL

Australian Society for Limnology Inc.

NEWSLETTER

Volume 45 # 2, June 2007

Registered by Australia Post
Print Post Publication No. PP 381667/00125

ABN 54 606 483 226 ISSN 1037-2512

AUSTRALIAN SOCIETY FOR LIMNOLOGY INC.

The Australian Society for Limnology Inc. (ASL) is an Australian-based scientific society whose focus is the study and management of inland waters. The ASL was established in 1961, and has a current membership of over 650 researchers, managers, engineers, teachers and tertiary level students from all states and territories. Members have a strong professional interest in inland aquatic issues, including the maintenance of biodiversity, the maintenance and/or restoration of water quality, and the wise use of aquatic resources. The Society also has a strong interest in fostering the scientific and intellectual development of tertiary students.

The Society includes members working in government agencies, tertiary institutions and many industries related to aquatic resources. Through their daily activities, members have contact with local communities and are in a sound position to interpret and advise on inland water issues. The Society has a substantial knowledge base, and has assumed a responsibility to ensure that this is available to those who manage inland waters.

Accordingly, the charter of the ASL is to further our understanding of Australia's inland waters and to promote their wise use and sustainable management. In this manner we will contribute to the continued existence of this valued resource and the maintenance and enhancement of the quality of life for all Australians. The ASL regularly produces a newsletter with notes on limnological activities, articles of interest, book reviews and announcements of upcoming events likely to be of interest to Members.

ASL Home Page - http://www.asl.org.au/

CONTENTS

CONTENTS	4
PRESIDENT'S REPORT	5
EDITORS NOTE	6
ANNOUNCEMENTS	8
AWARDS	13
TRAVELS WITH LIMNOLOGISTS	14
KAYAK 4 EARTH REPORT	17
REPORTS FROM THE TRENCHES	18
FORTHCOMING CONFERENCES AND WORKSHOPS	29
ASL VOLUNTEERS	36
MEMBERSHIP INFORMATION	41
REGIONAL EXECUTIVE MEMBERS 2006-2007	42

PRESIDENT'S REPORT

Last month's weather certainly kept climate change and water in the news - wild weather and flooding in coastal NSW and Victoria, a cold snap (and wet) across much of northern Australia, and one of the lowest June rainfalls on record in the south west of WA. Meanwhile, level 5 water restrictions continue here in Southeast Queensland and the State Government has announced a complete overhaul of the urban water sector, which will have important implications for integrated water resource management in the region. Politicians and water managers are clearly starting to react to these changes in climate. I can't help wondering how our river and wetland plants and animals are responding too, given that flow regime and temperature are considered to be key drivers of life history patterns. Perhaps this would be a good time to re-invest in some basic autecology?

I attended the National Water Commission Stakeholder Forum in Canberra last week, aimed at getting feedback on progress against the National Water Initiative and to discuss priorities for future water reform. One of the critical issues identified was the need to build human capacity, right across the water sector. This is an area of particular relevance to our Society and to those of us engaged in research and management on inland waters. Part of the underlying issue is of course declining undergraduate enrolments in science and there is a clear need to find incentives to entice those thinking of tertiary education to consider a career in the water sciences. However, we also need to explore opportunities to provide an attractive career pathway for those considering postgraduate research and beyond - e.g. more postdoctoral fellowships for those finishing their PhD studies and, beyond that, longer term senior fellowships. I am hoping this is an issue the ASL Executive can explore further, so if you have any ideas or interest in this area, please let me know.

Many of you will now be aware of the details of the combined ASL-NZFSS meeting in Queenstown on 3-7th December (http://www.es.govt.nz/events/wit/index.aspx). I hope that many of you are able to attend and that university staff will encourage your students to attend as well. The Society is making available funds to support student travel to the meeting. Please check the website and this newsletter for further details.

I will also put in a plug for the combined 10th Riversymposium and International E-flows meeting in Brisbane 3-6 September (http://www.riversymposium.com/), co-sponsored with The Nature Conservancy. If you prefer a smaller, science-focused meeting, please check out the details for the Third International Symposium on Riverine Landscapes (TISORL) to be held at Couran Cove near the Gold Coast during the week before the Riversymposium.

Stuart Bunn **8 July 2007**

EDITOR'S NOTE

'Hard drive failure imminent'.

That's how the last week of June began for me, and a few moments later my computer proved that it wasn't joking and died a horrible death. No real harm done except the loss of all of my e-mail, together with everyone's contributions to this issue of the ASL newsletter. So thank you everyone who responded to my urgent call for resubmissions, and apologies for the lateness of this edition of the Newsletter.

Drought ... then floods ... I guess we are expecting pestilence next. After a year of weather of biblical proportions, Victoria is left cleaning up after severe flooding while still having water reservoirs which are 30% full. The big project solutions have been rolled out, with a proposed desalinization plant in Gippsland and a pipeline taking water from the Goulburn-Broken system to the north. As aquatic ecologists my concern is that the engineers are now taking over. We can build these things. We can engineer solutions. But the reality is that the shortage of water in Australia requires a portfolio of responses. Living on the most arid continent there is simply no excuse for the fact that Australians use >250L/person/day – similar to the US, Canada and Japan, but considerably more than comparable developed countries in Europe (2005 figures). It is concerning that while water efficiency is given lip service the actual mechanisms to reduce water consumption (regulation and a realistic price structure) are in danger of being neglected because of the big ticket responses.

Why does this matter to stream ecologists? Well it's obvious, but already we are seeing the hard won environmental flows being signed away as a response to the need for drinking water. Piping water from the Goulburn-Broken in Victoria for instance will see water savings that were supposed to be piped into the Snowy potentially available to provide water for Melbourne. In the face of strident demands for drinking water, the fear is that environmental flows will have the lowest priority, and ultimately fall off the political map.

This edition of the Newsletter is somewhat reduced, partly because of the problems outlined above, but also because I didn't hear from a lot of groups around Australia. Send me your news!! I'm sure everyone loves to hear about it all. **The deadline for the next edition will be September 15th.**

Ross Thompson

Membership Information and contact details of the Regional Executive Members can be found at the back of this Newsletter.

Newsletter Editor Contact Details:

Ross Thompson

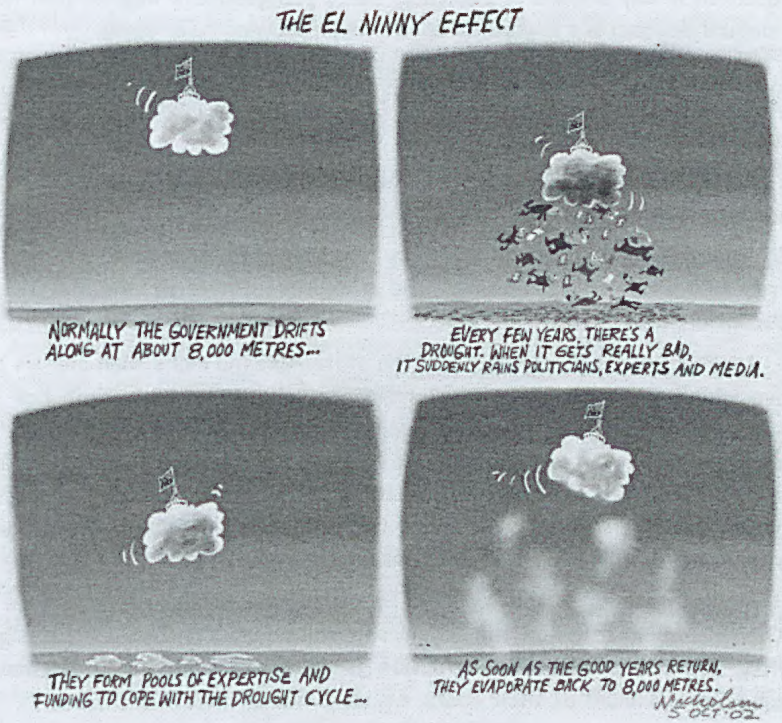
School of Biological Sciences

Monash University, Clayton

Melbourne VIC 3800

Phone: 03-9905-5633

E-mail: ross.thompson@sci.monash.edu.au



ANNOUNCEMENTS

Bill Williams Travel Scholarship (BWTS)

Applications are invited from research students for financial assistance in the form of the Bill Williams Travel Scholarship (BWTS) to enable them to present a paper or poster at an overseas conference, symposium or workshop. Bill Williams was a founding member of the Australian Society for Limnology, a leading pioneer of limnological research in Australia and widely known both inside and outside the country for his advocacy of the study of inland waters. He was very conscious of the need to encourage international exchange amongst limnologists, hence the inauguration of this scholarship.

The purpose of this scholarship is to enable research students to present their work in an international forum. Students who are carrying out research in any branch of limnology for a postgraduate degree (but not an Honours degree) are eligible to apply. The following rules apply:

1. Applicants must be current postgraduate students at any Australian University or have submitted their thesis within 12 months of applying for the BWTS.

2. Applicants must have been members of the ASL for at least 12 months and have current financial membership.

3. The BWTS will be awarded by a committee consisting of the ASL President, the ASL Treasurer, and a representative of the Bill Williams Memorial Committee.

4. Applications must include a written statement (no more than one A4 page) describing the research, its significance, and the stage that has been reached. The statement must be endorsed by the student's supervisor, who should confirm that the student has reached a stage where something useful can be presented. An abstract of the paper that the applicant proposes to present must also be included, and the presentation must acknowledge the scholarship in full. A CV should be included.

5. Applicants must submit a budget indicating the various costs of their trip. This should indicate how the scholarship will be used and what other support they hope to obtain. The intention is that the scholarship will cover a substantial amount of their costs, e.g. an airfare.

6. Award of the scholarship will be judged on: (i) significance of the work; (ii) originality and soundness of the research; (iii) the progress made; (iv) ability to present a clear and concise statement of the study.

One scholarship will be awarded next financial year (2007-08). Applications should be sent to Dr R.Marchant, ASL Secretary, Museum of Victoria, GPO Box 666E, Melbourne VIC 3001 by 18 Oct 2007.

(Those students looking for support to attend the NZ joint congress in Dec 2007 should apply for Student Travel Awards, not the BWTS)

Student Travel Awards for the 2007 joint ASL - NZ Freshwater Sciences Society

Applications are invited from research students for travel assistance to attend and present a paper or poster at the Annual Congress of the Australian Society for Limnology. The purpose of this assistance is to encourage students to present the results of their work in public. Students who are carrying out research in any branch of limnology for a higher degree are encouraged to apply. The following rules apply for assistance:

1. Applicants must be full-time postgraduate students at any Australian University. There is no age limitation. Applicants must have current financial membership of the ASL for at least 6 months.

2. Assistance will be granted on the recommendation of a panel of three appointed by the Society.

3. Applications must include a written statement of no more than 200 words describing the research, its significance and the stage that has been reached. This statement must be endorsed by the student's supervisor. An abstract of the paper that the applicant proposes to present must also be included.

4. Award of assistance will be judged on: (i) significance of the work; (ii) originality and soundness of the research; (iii) the progress made and whether the stage has been reached where something useful can be presented; (iv) ability to present a clear and concise statement of the study.

5. Applications must be lodged with Dr Richard Marchant, Museum of Victoria, GPO Box 666, Melbourne VIC 3001, by15 July 2007. Applications can be sent by email to rmarch@museum.vic.gov.au

ASL Poster Grants

The executive has decided to make small grants available to those students who wish to present a poster at an ASL congress. The aim of this award is to help cover the production costs associated with a poster. The society hopes this will encourage reluctant students to present a poster and thus to benefit from the experience of presenting their work to fellow limnologists.

The rules for applying for this grant are:

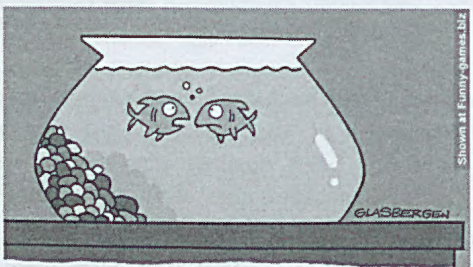
1. Applicants must be full-time postgraduate students at any Australian University. There is no age limitation. Applicants must have current financial membership of the ASL for at least 6 months.

2. Assistance will be granted on the recommendation of a panel of three appointed by the Society.

3. Applications must include a written statement of no more than 200 words describing the research, its significance and the stage that has been reached, as well as an estimate of the cost of producing a poster. This statement must be endorsed by the student's supervisor. An abstract of the poster that the applicant proposes to present must also be included.

4. Award of assistance will be judged on: (i) significance of the work; (ii) originality and soundness of the research; (iii) the progress made and whether the stage has been reached where something useful can be presented; (iv) ability to present a clear and concise statement of the study.

5. Applications must be lodged with Dr Richard Marchant, Museum of Victoria, GPO Box 666, Melbourne VIC 3001, by15 July 2007. Applications can be sent by email to rmarch@museum.vic.gov.au



"I'm leaving you, Gilbert. You can keep the bowl, but I'm taking the water and all the colored stones!"

AUSRIVAS course now enrolling: Module 1 to start in July

The AUSRIVAS Online training course is offered twice a year by the eWater CRC and the University of Canberra. The course aims to teach the skills and knowledge needed to assess river health to an acceptable standard using the Australian River Assessment System (AUSRIVAS) methods. Those who complete its requirements successfully are eligible for accreditation from the relevant state or territory agency.

There are no prerequisites for this non-award course, other than registration and payment. The theoretical knowledge required to use AUSRIVAS for river health assessment can be learnt entirely online in four interactive modules that can be completed at you own pace over 12 weeks. A 4-day practical face-to-face workshop is offered as a fifth module, teaching the practical skills required. The workshop module is held in Canberra but would you like us to hold a workshop in your state? If there is sufficient demand from a group or agency we can arrange a workshop in any State or Territory.

The first module of the next AUSRIVAS Online course is scheduled in late July and is enrolling now! If you would like to enroll in the course or any individual module please contact Sue Nichols at sue.nichols@canberra.edu.au for more information or queries regarding a workshop outside the ACT.

http://ausrivas.canberra.edu.au/Bioassessment/Macroinvertebrates/Training/

It is also time to enrol in Watercourses Online!!

- Brush up your knowledge about the ecology of Australian river systems and how they are affected by catchment land-use and other human disturbance.
- Find out how to apply the national water quality monitoring guidelines to waterways, and for State of the Environment reporting.
- Watercourses Online is a growing set of online training courses, designed primarily to support personnel in water management, natural resources management, environmental education and ecological consulting.

The 3 courses currently offered are:

* Ecology and River Function
* Catchments: their Character, Waters & Chemical Composition
* Waterway Assessment

Find more details by following the links from:

http://freshwater.canberra.edu.au

Or contact:

Professor Richard Norris

phone 02 6201 2543

email richard.norris@canberra.edu.au

Sue Nichols

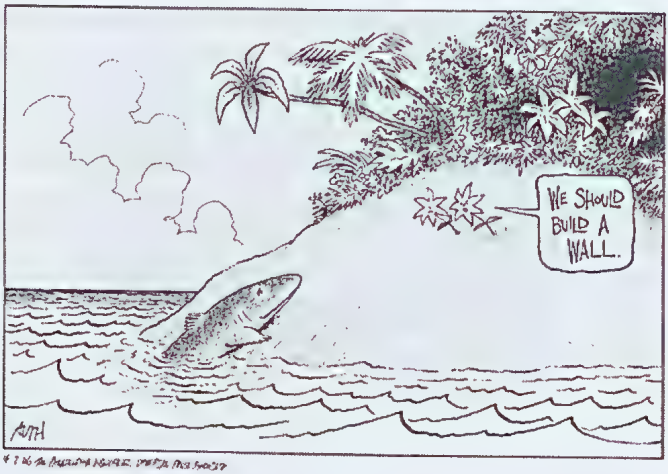
phone 02 6201 5408

email sue.nichols@canberra.edu.au

Professor William Maher (for Catchments module only)

phone 02 6201 2531

email bill.maher@canberra.edu.au



AWARDS

Patrick De Deckker, awarded the Order of Australia

ASL would like to recognize the admission of Professor Patrick De Deckker to the Order of Australia. Professor De Deckker, of the Australian National University is recognized for service to science through research and teaching in the areas of palaeoclimate studies, salination and climate change, and through the initiation and support of international scientific collaboration.

A BIT OF FUN ~ KEEP THOSE LETTERS COMING !!

Ask Onmil all the tricky limnological etiquette questions you really want answered!!

Omnil asks the question this time 'Are Australian limnologists becoming less fun?' Has the strain of the drought, the fight for funding, the threat of invasive species and the fact the Victoria Bitter has reduced it's alcohol content (but sadly, claims to have kept the taste) ground all the laughter and hilarity out of them. Omnil has only received one submission this time and it described acts that are still considered illegal in many civilized parts of the world. What is Omnil to do??

Find the funny stuff and Ask Omnil!!

TRAVELS WITH LIMNOLOGISTS

WORLDWIDE DRAGONFLY ASSOCIATION INTERNATIONAL SYMPOSIUM

Swakopmund, Namibia, 6-10 April 2007

The Worldwide Dragonfly Association held its fifth biennial International Symposium of Odonatology at Swakopmund, Namibia, from 6-10 April 2007. Over 100 delegates and partners attended. The National Museum of Namibia had offered to host the symposium as part of its centenary celebrations.

After various welcomes the event was opened by the Minister of Youth, National Service, Sport and Culture and a special set of postage stamps featuring Namibian dragonflies was launched; these two activities offering numerous photo opportunities for the local press.

The first of the plenary papers, given by Stanislav Gorb of the Max Planck Institute for Metals Research, reviewed the Odonate head arrester system which immobilises the head during feeding or when the dragonfly is in tandem flight. Not only are there phylogenetic implications but the locking mechanism could be a useful model in mechanical fasteners. Michael May (Rutgers University) gave the phylogenetic plenary based on molecular sampling of nearly all recognised subfamilies of Odonata. Australian's all let us rejoice for our endemic Hemiphlebia mirabilis is still basal to all of the other Zygoptera. Epiophlebia (Anisozygoptera) is sister to all other Anisoptera. Recent other studies which had suggested that part of the Lestidae lay within the Anisoptera were not supported.

Other plenaries covered a summary of dragonfly movements categorised as maiden, seasonal, commuting or migration flights (David Thompson, Liverpool University); the different strategies evolved for coping with temporary waters or permanent waters with predators (Frank Johansson, Umeå University, Sweden); and the different thermoregulatory responses of fliers and perchers (May and Philip Corbet)

Amongst the contributed papers the Australian contributions were the spatial distribution of larval Gomphids from John Hawking and a summary of a forthcoming paper by Gunther Theischinger which distinguishes the monotypic Dendroaeschna as the sole southern member of the Brachytronidae, the subfamily being elevated to family status. Of the other 46 oral presentations they can be categorised as: Faunal surveys and conservation status within a region including the use of volunteers (8 papers); habitat preference including indicators of environmental condition (8); conservation of individual species (4); climate change and range expansion (4); reproductive strategies including male display and sperm competition (8); the ever popular female colour dimorphism (3); and fossil Odonata (2). Additional topics were biogeography, chemical resistance, diurnal activity, flight performance, larval feeding morphology, phylogeny, polarisation of vision and selective predation on wing colour. A few which particularly caught the ear were telemetry using a small responder to a signal rather than a heavier transmitter, immune response to predators and parasites, and, for all you bureaucrats, the value of the Odonata as service providers. Now you know where odonatological research is heading.

Twenty-two posters were displayed and each author was given five minutes during the oral sessions to describe and advertise their work.

An important plenary seminar was held on the morning following the Conference Dinner, but still to good effect. The WDA sees the need for a Global Biodiversity Assessment for Odonata under the auspices of the IUCN Special Species Commission. William Darvill (IUCN), using the amphibia as an example, described the information that should be assembled and Viola Clausnitzer, retiring chair of the IUCN Odonata Specialist Group, summarised the information that had already been included in the IUCN Species Information Service (SIS) database by clandestine means. Although funding for the project has not yet been achieved, global red listing and regional assessments have allowed a large number of species to be incorporated. A next step is to collate point locality data and, if you know of specimen-based electronically available data for Australian species and localities, I am very keen to hear from you. endersby@mira.net

To commemorate the Symposium and to aid the subsequent field trips Frank Suhling and Andreas Martens published the 'Dragonflies and Damselflies of Namibia', a comprehensive guide with keys, descriptions and colour photographs for the 130 species from the country together with another 20

that might arrive one day. Also launched was the bilingual 'Juwelenschwingen/Gossamer Wings', a book based on the magical close-up and high-speed photography of Dagmar and Georg Rüpell. Warwick and Michèle Tarbuton also had copies of their 'A fieldguide to damselflies of South Africa' a companion to the earlier dragonfly volume. Philip Corbet proudly displayed a copy of his 'Dragonflies: behaviour and ecology of Odonata' which has just been translated into Japanese.

At the closing ceremony it was time to thank the three key organisers, Eugène Marais, Frank Suhling and Andreas Martens and to see the sacred wooden baton handed on to representatives who will host the 6th Symposium in Xalapa, Mexico in 2009.

This summary was also submitted to the Victorian Entomologist. Join both societies and read it in stereo.

Ian Endersby

KAYAK 4 EARTH

On 27th May this year, 54 year old Steve Posselt set out on an epic journey to highlight a problem and make a difference. He says "Global warming, water and the Murray Darling Basin are very clear indications of our inability to live sustainably and the purpose of this trip is to draw attention to what we must do." Steve will paddle and walk his kayak down the shrinking river systems between Brisbane and Adelaide.

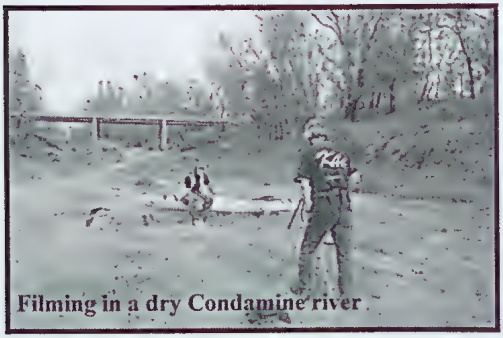
This trip is of particular relevance to many ASL members as he will be traveling down the rivers that a lot of us work on. Steve has collected information on the Brisbane and Bremmer rivers using a sond for Dr. Peter Pollard (Australian Rivers Institute). He is interested in hearing from anyone else working on the areas where he will be going and is willing to collect information/ observations etc.

Map of the journey

Steve has already completed a significant part of the journey including Brisbane - Ipswich - up the great dividing rage to Toowoomba - Dalby - Chinchilla - Condamine. From Condamine Steve will hopefully be paddling (and not walking) down the Condamine, then the Darling and finally the Murray before entering Lake Alexandrina, turning right and heading up the Torrens river to Adelaide. His aim is to finish before Christmas but in his own words "I'm really not sure how long it will take - it's a bloody long way!"

For those of you not already aware, Steve is my Dad, so I'm following this trip a little more closely than others. If you would like more information or are interested in teaming some research with the trip just let me know and I'll see what we can do. A good mate of Steve's is also kindly updating a website on a regular basis where you can get reports on the progress of the journey see **www.kayak4earth.com**.

Steve, Kerrie and Bruce (support crew)
with the support vehicle and kayak


Filming in a dry Condamine river

On the road to Dalby

REPORTS FROM THE TRENCHES

MONASH FRESHWATER ECOLOGY RESEARCH GROUP

The exciting news at Monash is the decision to hire two new acquatic ecologists in the School of Biological Sciences. The two positions will both be in Freshwater Ecology and are a professorship (replacing the irreplaceable Sam Lake) and a Level B position. We look forward to having some exciting new colleagues. With new faces on the horizon we all see the return of some familiar ones. **Elisa Raulings** and **Kay Morris** return as research fellows to work on **Ross Thompson** and Ralph MacNally's ARC funded project exploring the effects of wetland plant dispersal on community structure at landscape scales. While on the ARC theme, **Sam Lake**, Ralph MacNally and Andrea Taylor are well progressed on their Discovery grant looking at dispersal of invertebrates between farm dams. **Jarom Stanaway** has now finished his Honours on this project, but has been convinced to stay on in the lab to sort more samples (the threat of impending unemployment is a wonderful incentive). Sam Lake is continuing to work on his drought book, in addition to his existing MDBC funded riparian restoration project with **Paul Reich**. That project has now moved into it's next phase, with new sites being established in NSW following the successful planting of the Victorian sites. **Mathew Johnston** has joined the restoration team with Paul, and PhD student **Elise King** is also working on the same systems, looking at the interaction between local community structure, habitat compression and dispersal limitation. **Damien McMaster**, Paul and Sam continue to work on the Broken-Boosey system. **Nick Bond** meanwhile has started work on eWater projects, assisted by new PhD student **John Morringello**. Ross Thompson has a suite of new PhD students with **Sam Imberger** (co-supervised by Mike Grace) starting her work on urban streams, **Mardiana Ali** (with Reich and Grace) about to commence her study of macrophytes and nutrient dynamics in lowland streams and **Susie Ho** (with Bond) looking for sites for her PhD on the food web consequence of *Gambusia* invasions. Meanwhile PhD students **Dave Reid** and **Karen Cooper** approach the end of their PhDs, following hot on the heels of **Sarina Loo**, who submitted in May. **Beth Hawkins** continues her PhD work (up to her neck

in bugs), while **Amber Clarke** is about to embark on her second sampling session in headwater streams. Amber has also recently been awarded a Wentworth Group scholarship. There has been the usual bunch of Hons students arriving and departing, with **Gareth Belton** (effects of metals on algae), **Amy Hanson** (fish community biology), **Meaghan Walker** (inter-tidal ecology), **Vanessa Marcum** (roach habitat) and **Penne Coleman** (urban stormwater wetlands) successfully completing, and **Will Sowersby** (galaxiid biology), **Sara Jacobs** (urban stream ecology), **Alissa Monk** (marine ecotoxiology), **James Douglas** (trout-galaxiid interactions) and **Fiona Melvin** (climate change biology) commencing. The conference season is upon us and Paul Reich and Sam Lake are shortly off to ESA in California, before Sam goes on to SIL in Montreal where he will be joined by Ross Thompson. So with many comings and goings, we look forward to the second half of the year.

Ross Thompson

AUSTRALIAN CENTRE FOR TROPICAL FRESHWATER RESEARCH, JAMES COOK UNIVERSITY, TOWNSVILLE

Damien Burrows, Vern Veitch and Ally Lankester presented at the 5th Australian Stream Management Conference in Albury.

Damien Burrows and Vern Veitch are wrapping up three projects completed under the Great Barrier Reef Coastal Wetlands Protection Programme. Of note is the first barramundi recorded from Lagoon Creek for several years. This large (~27 ha) and valuable series of lagoons near Ingham, north of Townsville was completely grown over by water hyacinth with a secondary invasion of grasses, sedges and even melaleuca trees to 4m high, growing on top of the thick weed mats. After application of aerial brine, small boats, excavators and floating harvesters, the mats have been removed, enabling the ecosystem to start re-establishing itself. A most satisfying project to see the submerged macrophytes, fish and birds return.

Although our staff roster is usually quite stable, there have been some staff movements lately. Ally Lankester has left to pursue a PhD with CSIRO looking at social aspects of graziers riparian management in north

Queensland – all the best Ally. After 19 and a half years of loyal service, the only remaining foundation staff member – John Faithful, has left to further his career in Canada, mostly working in tundra-type environments. Quite a change of scene after 20 years research in the tropics. We'll miss you John. In a case of swapping personnel with Canada, after completing his Honours on freshwater turtles, Jason Schaeffer is joining the ACTFR fish research team, working mostly on Wet Tropics and tilapia-related fish projects.

Barry Butler and Damien Burrows have just completed a 2.5 year project testing the tolerance of 14 tropical freshwater fish species to low dissolved oxygen and deriving new water quality guidelines from the resultant data. Although most fish can survive short-term exposure to quite low levels of DO, sub-lethal effects such as increased gill ventilation, begin not far below saturation. Temperature and fish size have a significant effect on DO tolerance. Proposed trigger values vary between species, with values of 30% sat. and 75% sat, suggested as the default acute effect and chronic effect triggers respectively. The most sensitive species tested were fly-specked hardyheads and barred grunter, though other potentially sensitive species still require testing.

Colton Perna and Mick Pusey recently wrapped up a 4-week survey of the freshwater fishes of the southern Gulf of Carpentaria, including the Nicholson and Calvert catchments. These field trips are part of the North Australia Freshwater Fish (NAFF) project between ACTFR, Australian Rivers Institute at Griffith University and NT Fisheries. Next trip is a few weeks on Cape York.

On a disappointing note, we have recently confirmed an established population of the exotic fish *Tilapia mariae*, in Lake Barrine, a volcanic crater lake and National Park on the Atherton Tablelands. They are breeding there and growing to a good size, though preliminary investigations indicate the population is not large. Nonetheless, we are recording new sites containing exotic fishes with alarming regularity.

Damien Burrows

FRESHWATER ECOLOGY, ARTHUR RYLAH INSTITUTE, DSE VICTORIA

The Victorian Index of Wetland Condition (IWC) is about to undergo testing in the Wimmera region. The IWC is currently being used in a provisionally by some Catchment Management Authorities. Following testing, the IWC will be used by CMAs to report against wetland condition targets and measure progress against management actions. Shanaugh McKay and Phil Papas, together with Janet Homes (from DSE head office), are currently preparing data, selecting sites and developing a landscape disturbance index for use in the testing.

David Bryant and Phil Papas have just completed a review on the presence of Marron in Victoria. Marron is endemic to Western Australia, however does also occur in Victoria (and South Australia). Potential issues associated with its translocation and impacts on native biota have been scoped in the review. Dave and Phil have also recently completed a study for the Department of Primary Industries and Melbourne Water, determining the impact of exotic and native submerged macrophytes on macroinvertebrates in Melbourne metropolitan wetlands. The literature review (stage 1 of the project) can be downloaded from the ARI website (www.dse.vic.gov.au/ari/reports) and the study report will be available there soon.

The bug group welcomes Bronwyn Cumbo as a new, part-time addition to the group. Bronwyn has experience with marine invertebrates and is assisting with the identification of estuarine invertebrates from shoreline sediments of the Western Treatment Plant (WTP) on Port Phillip Bay. The data from this project will help determine why shorebirds gather where they do and whether the further treatment of effluent from the WTP will affect their distribution and abundance. This project is being done in collaboration with Terrestrial Ecology Research at ARI.

Shanaugh McKay, Di Crowther and Mike Nicol have been extra busy in the field for the last few months making up for the temporary loss of team member David Bryant (broken leg as a result of bicycle stack next to the Yarra River). They have been sampling in the Thomson, Otways, Portland, Werribee, Maribyrnong and Kiewa catchments for a number of different projects, breathing a collective sigh of relief at the completion of sampling.

Dave is happy to be back on his bike to exercise the recently knitted bones. Michelle Kohout, Keely Ough and Ruth Lennie and Mike Smith of the NAP

Wetlands, Biodiversity and Salinity Project team are currently working on the final report for this project. Information on the project and fact sheets are available on the ARI website (www.dse.vic.gov.au/ari/).

John Koehn has continued squeezing as many hours into the day as possible with his involvement on a number of expert panels including the drought expert panel with the MDBC and the expert panel for low flows in the Ovens River, Victoria. John has also been busy working with Martin Mallen-Cooper assessing the potential impact on native fish populations of a proposed regulator on Chowilla Creek in South Australia. Charles Todd and John have been undertaking work on a new population model for Murray cod and modelling management scenarios for the species in the Mullaroo Creek system in northwest Victoria.

Alasdair Macdonald has recently started working at ARI after a brief stint working in the consulting world. So far this year he has been busy monitoring native fish condition and movement in relation to the re-snagging work currently being conducted on the Murray River. Alasdair has also been involved in the experimental design for the ongoing Trout cod recovery plan and benchmarking site conditions within the proposed demonstration reach for the Ovens River.

If you weren't already aware, Alison and Dave Crook have duly added their contribution to the future fish ecologist pool with the birth of Jade Ann Crook born in early March. Not to be outdone Janet Pritchard (formerly of ARI) and her partner thought they would further boost the pool with the happy arrival of Jennifer Linda van Daele on 23 May weighing in at 3.36kg (7lb 7oz) carrying a very healthy set of lungs!

Di Crowther

AUSTRALIAN RIVERS INSTITUTE, GRIFFITH UNIVERSITY, BRISBANE

Catherine Leigh, a PhD student in the Australian Rivers Institute, has recently been received awarded a Wentworth Group of Concerned Scientists travel scholarship. She is undertaking research to understand the ecological functioning of southern Gulf of Carpentaria rivers. The scholarship will enable her to visit with the Wentworth Group and communicate her results more widely. Michele Burford and her team of researchers working on southeast Queensland

reservoirs was recently awarded the 2007 Healthy Waterways Research Award for their collaboration with local water authorities. Their research is focussed on algal ecology and nutrient dynamics in reservoirs and their catchments. David Sternberg and Harry Balcombe have continued their fish sampling in the Moonie River along with NRW staff on the eWater F2 (Rivers and Floodplains) and A1 (Landscape Ecology) projects. Kate Masci and Gio Carini were also involved in the Moonie sampling, collecting, bits of fish, mussels, yabbies and anything else that moves for ultimate genetic analyses to explore genetic patterns throughout the catchment. Diana Ly (Fish body condition in the Moonie River) and Raymonde DeLathouder (turtles in an urban landscape) have recently handed in their honours thesis and looking much more relaxed.

Harry Balcombe

DEPARTMENT OF ENVIRONMENT AND CONSERVATION, WESTERN AUSTRALIA

A new era has dawned at the Department of Environment and Conservation Woodvale Research Centre, with significant changeovers of staff in the last few months...but the future is rosy!

Adrian Pinder has been acting in Stuart Halse's role and has been relishing his involvement in a wide range of aquatic projects, from the Pilbara Biological Survey to drainage evaluations in the Wheatbelt. Adrian is focusing on re-building the group's capacity, utilising the expertise of long-term staff members such as himself and David Cale.

David Cale and Melita Pennifold are continuing DEC's detailed long-term monitoring of south-west wetlands, and the numbers of species they are finding at some of these sites are (still) continuing to increase.

Jim Cocking and Jane McRae have both left to join the consulting world, and will be sadly missed! Lien Sim has recently left to go on maternity leave, with a replacement scientist in the wings to take over the classification and evaluation of Avon NRM region wetlands.

John Lizamore joined the group in February as part of a project evaluating the potential effects of drainage on wheatbelt wetlands, and has been occupied with the huge task of mapping wetlands across the region. He is ably assisted by Dani Halliday and Anna Leung, who are all working furiously to capture information sorely needed to manage the wetlands across this area.

Lien Sim

UNIVERSITY OF NEW ENGLAND AQUATIC RESEARCH

As the autumn leaves yellow and winter sets in on the Tablelands we say farewell to familiar faces and welcome new ones. This is the last New England winter that Andrew Boulton will have to endure as he migrates west to warmer climes where thongs may actually be appropriate footwear. Andrew has taken on the position of Editor-in-chief for the journal Marine and Freshwater Research, and will enjoy the freedom from university administration spending time writing papers and guiding his many postgrads towards completion. He will remain involved in the research at UNE over the coming years, with the first post-winter return visit already scheduled. Andrew's collegiality, wisdom and humour will be missed by all – we wish him the best in his new pursuits. This winter also sees Kim Jenkins finalising her postdoctoral research at UNE and moving to UNSW to continue her innovative research on the Macquarie Marshes with Richard Kingsford and his group. We also wish Kim all the best in her new position.

Winter also sees the arrival of new faces at UNE, with Tobias Bickel filling the postdoctoral position to work with Glenn Wilson and Darren Ryder, contributing macroinvertebrate, fish and food web expertise to the projects in the Northern Murray Darling Basin. Out in the west Debbie Burgis continues her PhD that aims to model associations between inundation regimes and river biogeochemistry in floodplain rivers, and Peter Berney has been busy in the Gwydir wetlands sampling floodplain vegetation after the environmental flow releases earlier this year. Jill O'Keeffe continues her honours reviewing the aquatic biodiversity of the Namoi River, and a new PhD

student will be arriving soon to add a spatial context to the research in the Northern MDB, with the aim of developing remote sensing techniques that link to on-ground assessments of river condition.

Aquifer ecological research continues at UNE, with PhD student Moya Tomlinson finding yet another species of groundwater beetle (this time an elmid) at one of her field sites in the Peel system. Moya has also commenced her ecosystem services experiments to assess the effects of biofilm grazing by groundwater invertebrates on water quality. Peter Hancock continues his research on spatial and temporal patterns in stygofauna communities under different land management practices. Peter and Moya both attended and Environmental Futures Network meeting in Christchurch in June to discuss the future of groundwater ecological research in Australia and New Zealand.

To the east of the divide and Mick Warner and Luke Mitchell continue their honours tackling a research project on predicted effects of pipeline breakages or seepages on bugs, algae and water quality in rainforest streams near Lismore, working with Darren Ryder and Andrew Boulton and supported by funding from Rous Water. Ben Wolfenden and Sarah Mika are in the final stages of their PhD projects, and together with Andrew Boulton and Darren Ryder will present their findings on the effects of wood reintroduction on stream biogeochemical cycles and organic matter processing to the Upper Hunter River Rehabilitation Initiative workshop in Muswellbrook in late July.

On the tablelands Darren Ryder and Andrew Boulton have just commenced a project funded by the NSW Environmental Trust to measure the ecological success of stream restoration in regional towns that receive urban and rural inputs. And Darren Ryder has made a reluctant return to teaching and administration at UNE after a semester of study leave, spending time in WA with Pierre Horwitz at ECU re-igniting his interest in the effects of fire on the biogeochemistry of peat swamps.

Darren Ryder

THE AQUATIC HEALTH UNIT (DEPARTMENT OF NATURAL RESOURCES, ENVIRONMENT AND THE ARTS)

The Aquatic Health Unit (Department of Natural Resources, Environment and the Arts) continues to be kept busy with ongoing projects. One of the major activities undertaken by the unit recently is a review of Beneficial Use Declarations (BUD's) for Darwin Harbour and its catchments, as part of the Water Quality Protection Plan (WQPP) being developed for the harbour. This is being undertaken by Simon Townsend, George Maly and Julia Fortune. The review has involved extensive community consultation in the form of public presentations and distribution of surveys.

Water quality sampling was successfully undertaken at 7 gauge stations in the Darwin Harbour Catchment over the 2006/07 wet season for the Darwin Harbour Catchment Loads Project. The data from the past two wet seasons and from the previous 10 years will soon be published in a comprehensive report that will feed into the WQPP project.

Simon Townsend and Mike Welch have recently recommenced field data collection on the Katherine River for the environmental flows project that is being coordinated by CDU. The main focus of the Aquatic Health Units contribution to this year's dry season sampling is investigating the biomass and primary productivity contributions of phytoplankton, benthic algae and macrophytes in the 10km river reach being studied.

Gisi Lamche is currently undertaking early dry season AUSRIVAS sampling and continuing with laboratory identifications from the previous year. Gisi is also organising a sampling methodology workshop in August for industry, environmental scientists and the community. This will be the first training course on this topic in the NT and has attracted a lot of interest so far.

Michael Welch

CHARLES DARWIN UNIVERSITY, AQUATIC ECOSYSTEMS AND WATER RESOURCES GROUP

With a great start to the dry season, field work is back on the agenda. Andrew Raith has recently commenced an Honours project supervised by Michael Douglas and Peter Davies (UWA) looking at the influence of fish and shrimps on benthic metabolism. His work will use electric exclusion devices and metabolism domes in small streams in Litchfeild National Park. He's had a few good days carting bricks to the streams and is looking forward to hiking in with car batteries.

The second year of field sampling is now under way for the Daly River fish and flows project. Brad Pusey and Mark Kennard (Griffith Uni) and Lizzie Sullivan (Wagiman spokesperson) presented talks on the project at the recent ANGFA conference held in Darwin. The team then started sampling fish in the lower Daly River with Helen Larson (NT Museum) and Ian Dixon (CDU). Julian Olden (University of Washington) and Poncie Kurnoth (NT Fisheries Research) have now joined the group to start shocking fish further upstream.

Sam Lake (Monash University) flew in for a week and participated in fish sampling the Daly River. Sam provided copious advice and insights on all aspects of river ecology and research and presented a great seminar on droughts. He also set a great example for those interested in fish conservation by demonstrating (once again) how its possible to enjoy a few days fishing in the legendary barra-filled Daly River without harming a single fish. He really put the rest of the group to shame.

Ian Dixon completed a survey of the riparian zones of the Ord River catchment last year and has spent the past few months writing up the final report. Ian will present the results to the local land owners in the region n July.

Michael Douglas has been busy with the development of the TRaCK research projects and has been spreading the word about the TRaCK program in talks at the Australian Stream Management conference in Albury and at the NABS meeting in South Carolina.

Michael Douglas

FORTHCOMING CONFERENCES / WORKSHOPS

water:
aninconvenienttruth
A southern hemisphere WARNING

JOINT MEETING OF THE NEW ZEALAND FRESHWATER SCIENCES SOCIETY AND THE AUSTRALIAN SOCIETY FOR LIMNOLOGY

Queenstown, New Zealand
3rd to 7th December 2007
Incorporating the 40th Anniversary of the NZFSS (LIMSOC)

We have three great speakers indicate their interest in giving plenary talks, providing the New Zealand, Australian and United States perspectives on issues of relevance to freshwater.
Morgan Williams is NZ's Parliamentary Commissioner for the Environment (http://www.pce.govt.nz)
Peter Cullen (http://www.thinkers.sa.gov.au/pcullen.html) is fundamentally involved in the freshwater problems besetting Australia.
Bruce Wallace (Professor of Entomology and Ecology at the University of Georgia, Athens, Georgia (USA)
(http://www.uga.edu/ecology/people/faculty/wallace.htm)

Venue:
Millennium Hotel Queenstown (Conference Venue and accommodation)
Corner Frankton Road and Stanley Street, PO Box 551, Queenstown, NZ
tel: +64 3 441 8888 fax: +64 3 441 8889 reservation: +64 9 309 4420
email: millennium.queenstown@millenniumhotels.co.nz see:
(http://www.millenniumhotels.com/MCIL.nsf/lu_hoteldoc/71$$hoteldescription?opendocument) for details.
AND
Copthorne Hotel and Resort Queenstown Lakefront
Corner Frankton Rd & Adelaide St, Private Bag, Queenstown, New Zealand

tel: +64 3 442 8123 fax: +64 3 442 7472 reservation: +64 9 309 4420
email: copthorne.lakefront@millenniumhotels.co.nz see:
(http://www.millenniumhotels.com/MCIL.nsf/lu_hoteldoc/84$$hotelDescription?OpenDocument&cid=nb11747)

Accommodation:

- 170 and 200 rooms (mix of twin/single) are being held at Millennium Hotel and Copthorne Hotel. Rooms at Backpackers will also be arranged for Student accommodation.

Airlines:

Queenstown Airport (http://www.queenstownairport.co.nz/) is serviced by:

- Air New Zealand (http://www.airnewzealand.co.nz/default.htm)
- Quantas (http://www.qantas.com.au/)

Preliminary Meeting Schedule:

- **Sunday December 2nd - Workshops**
  Proposed Workshops include:
  - Fisheries Assessment Protocols - Envirolink Tools Project Workshop: Convener - Chris Arbuckle
  - Taxonomic Fair (macro invertebrates, fish, macrophytes): Convener - Dr Jon Harding
  - Public session - water: an inconvenienttruth: Convener - Dr Marc Schallenberg.
- **Monday December 3rd - Conference Opening Session**
  - 1pm - Opening Ceremony.
  - 1.40pm - Guest to open TBA.
  - 2pm - Morgan Williams, "New Zealand Inconvenient Truth" (40mins, plus 10mins questions)
  - 2.50pm - Peter Cullen, "Australian Inconvenient Truth" (40mins, plus 10mins questions)
  - 3.30pm - Afternoon Tea
  - 4pm - Bruce Wallis, "USA Inconvenient Truth" (40mins, plus 10mins questions)
  - 4.50pm - Drinks
  - 5.20pm - 6pm - Panel discussion (with drinks in hand).
- **Tuesday December 4th - Presentations.**
- **Wednesday December 5th - Presentations and Poster Session.**
- **Thursday December 6th - Presentations.**
- **Friday December 7th - Field Trips.**

Call for Papers:
Abstract submission (Presentation and Poster) from 1 September 2007 with deadline for papers 30 September 2007.

Presentations Format:

Oral Presentations: Contributed and invited presentations are limited to 12-13 minutes plus 2-3 minutes for discussion (**maximum 15 minutes per presenter**). Session moderators will strictly enforce these limits. Powerpoint presentations are the only format allowed for oral presentations.

Posters: The Conference Committee strongly encourages participants to consider submission for poster presentations. Posters are an excellent medium for detailed and extended discussion of your research and allow for complex charts, graphs, tables, or photographs that are difficult to present in an oral presentation session. This year we will have a special poster session on the Wednesday afternoon, where authors will be expected to attend their poster.

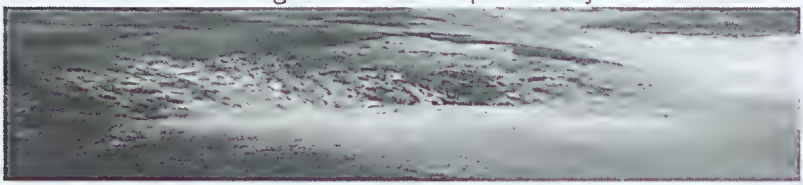
Web site: http://limsoc.rsnz.org/

Conference Committee:
Chris Arbuckle (Chair), Environment Southland.
Email: chris.arbuckle@es.govt.nz
Prof Colin Townsend (University of Otago)
Dr Gerry Closs (University of Otago)
Dr Christoph Matthaei (University of Otago)
Jay Piggott (University of Otago)
Rachel Ozzanne (Otago Regional Council)
Murray Nielson (Dept. of Conservation)
Maurice Rodway (Fish & Game - Southland)
Dr Belinda Robson ASL Rep. (Deakin University) Email: belinda.robson@deakin.edu.au

Conference manager: Ali Howard, Nelson Tourism Services

3rd International Symposium on Riverine Landscapes

Global change and river-floodplain ecosystems



August 27 – September 1, 2007, South Stradbroke Island, Queensland, Australia
http://www.griffith.edu.au/conference/tisorl2007/

Scientists and research students are invited to the 3rd International Symposium on Riverine Landscapes (TISORL) to discuss the implications of global-scale changes for river-floodplain ecosystems and to identify future research directions. Invited presentations will consider the effects of urbanisation and landuse change, water resource development, and climate change on river-floodplain ecosystems. Several concurrent workshops on science needs are planned and will focus on aquatic biodiversity, connectivity and river-floodplain-coastal subsidies, flow-ecology relationships, and indicators and assessment.

The Symposium venue is the beautiful Couran Cove Island Resort on Stradbroke Island, situated near the mouth of the Coomera River in the heart of Australia's fastest growing region. Post-symposium excursions include visits to World Heritage areas on the Gold Coast hinterland. The Symposium runs from Monday August 27 to Saturday September 1 2007. This is the week prior to the 10th International Riversymposium and 2nd International E-Flows Conference to be held jointly in Brisbane.

The local organizing committee is the Australian Rivers Institute, Griffith University, Brisbane, Australia.

For more information, please contact Dr Mark Kennard or Prof Stuart Bunn.

* m.kennard@griffith.edu.au
* s.bunn@griffith.edu.au

Plenary Sessions

The scientific program is organised around three themes, each constituting a symposium session featuring a keynote address and five or six topical review presentations. Science themes include global changes associated with urbanisation and land use, water use and flow regime changes, and climate change.

Theme 1: Urbanisation and land use impacts

Speakers:

J. David Allan - University of Michigan, USA.

Emily Bernhardt - Duke University, USA.

Sarah Gergel - University of British Columbia, Canada.

Jon Olley - CSIRO Land and Water, Australia.

Christoph Matthaei - University of Otago, New Zealand.

Klement Tockner - Swiss Federal Institute for Environmental Science and Technology (EAWAG), Switzerland.

Chris Walsh - Monash University, Australia.

Theme 2: Water use and flow regime changes

Speakers:

Charlie Vörösmarty - University of New Hampshire, USA.

Stephen Hamilton - Michigan State University, USA.

Roland Jansson - Umeå University, Sweden.

Julian Olden - University of Washington, USA.

Cathy Reidy - Umeå University, Sweden.

Andy Steven - CSIRO Land and Water, Australia.

Rebecca Tharme - International Water Management Institute, Sri Lanka.

Theme 3: Climate change

Speakers:

Christer Nilsson - Leader, Landscape Ecology Group, Department of Ecology and Environmental Science, Umeå University, Sweden.

Joseph Alcamo - Director, Center for Environmental Systems Research, University of Kassel, Germany.

Nick Bond - Monash University, Australia.

Francis Chiew - CSIRO Land and Water, Australia.

Cliff Dahm - University of New Mexico, USA.

Stan Gregory - Department of Fisheries and Wildlife, Oregon State University, USA.

Joyeeta Gupta - Institute for Environmental Studies, Vrije Universiteit, The Netherlands.

Registration

1. Monday 14th May 2007 - Close of Early Bird Registration
2. Monday 11th June 2007 - Final date for payment to guarantee accommodation at Couran Cove Resort
3. Post June 11th 2007 - Late payment fee of AUD$100

Registration costs

Students	AUD$ 850
Early bird registration (by 14/05/2007)	AUD$ 950
Standard registration (by 11/06/2007)	AUD$ 1050
Late registration (after 11/06/2006)	AUD$ 1150

- all prices are inclusive of GST

For more information go to:

http://www.griffith.edu.au/conference/tisorl2007

Brisbane, 3 - 6 September 2007

Held in partnership with The Nature Conservancy the symposium will be held in Brisbane from 3 - 6 September 2007. This year's symposium will focus on the emerging field of river management and Environmental Flows. The program will feature presentations on innovative practices and case studies from all over the world and a wide range of perspectives on managing river flows for people and ecosystem health. A key feature of the symposium is the presentation of the prestigious International and National Thiess Riverprizes for excellence in river management. This year the international prize is valued at AUD$300,000 and the national prize at AUD$100,000.

Riversymposium is part of Riverfestival, Brisbane's best-loved community and environmental festival celebrating our waterways and culture by focusing on the city's signature natural landmark, the Brisbane River. The festival is 10 days of celebration at the start of spring offering a rich and diverse program including music, visual arts, film, forums, education projects, dining, culture, large-scale free outdoor events and recreation. Delegates are encouraged to attend the many Riverfestival highlights.

Symposium registration

Registrations for the 10th International Riversymposium & Environmental Flows Conference are now open. You can register using either the on-line registration option or by downloading the registration form and then faxing or mailing your registration to the symposium secretariat along with payment. Please read the conditions of registration and cancellation policy before completing your registration.

To register go to: http://www.riversymposium.com

ASL Newsletter
http://www.asl.org.au/

SURFACE MAIL

POSTAGE PAID AUSTRALIA

If undelivered please return to:
Australian Society for Limnology Inc.
PO Box 605
MULGRAVE VIC 3170
Print Post Approved
PP 381667/00125

HAVE WE GOT YOUR DETAILS RIGHT?

To change your mailing details, please complete the below form and return to the address above:

MRS/DR/MR/PROF/MS/OTHER:.....
FIRST NAME:.....
SURNAME:.....
POSITION:.....
COMPANY:.....
NEW ADDRESS:.....
SUBURB:.....STATE:..... P/CODE:.....
PHONE: WORK ( ).....FAX ( ).....
EMAIL:.....